

CLAIMS:

1. A method for the self-testing of a reference voltage in electronic components, characterized in that the reference voltage (U_{ref}) is the variable of a function $f(U_{ref})$ that has an extreme at the point where the selected nominal value ($U_{ref.test}$) of the reference voltage (U_{ref}) is situated and in a self-test, the values of the function are determined in succession for
5 the reference voltage (U_{ref}) and for two further test voltages ($U_{ref} + \Delta U_{ref}$, $U_{ref} - \Delta U_{ref}$) that differ from the reference voltage (U_{ref}) by only small positive and negative amounts ($+\Delta U_{ref}$, $-\Delta U_{ref}$) respectively and these values are compared with one another, and if the values of the function for the test voltages ($U_{ref} + \Delta U_{ref}$, $U_{ref} - \Delta U_{ref}$) differ from the value of the function for the reference voltage (U_{ref}) in the same direction a pass signal is generated, or if not, a fail
10 signal is generated.
2. A circuit arrangement for the self-testing of a reference voltage (U_{ref}) in electronic components, characterized in that it comprises a function generator having a function $f(U_{ref})$ that has an extreme at the point where the selected nominal value ($U_{ref.test}$) of
15 the reference voltage (U_{ref}) is situated, and the input signals to which function generator are the reference voltage (U_{ref}) and two further test voltages ($U_{ref} + \Delta U_{ref}$, $U_{ref} - \Delta U_{ref}$) that differ from the reference voltage (U_{ref}) by only small positive and negative amounts respectively, and the output signals from which function generator are fed to sample & hold circuits, and in that it comprises two comparator circuits for comparing the values of the function for the
20 reference voltage (U_{ref}) and for respective test voltages ($U_{ref} + \Delta U_{ref}$, $U_{ref} - \Delta U_{ref}$), the outputs of which comparator circuits generate a pass signal if the signs of the signals at them are the same, and a fail signal if they are not.